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2. *PORONIA OEDIPUS*, Mont. Syll. Plant Crypt., p. 209; Nits. Pyr. Germ., p. 20. On dung. Alabama (Peters), Texas (C. Wright).

Stroma simple or branched, erect, dark brown, becoming glabrous, striate when dry, clavate-thickened at the base and attenuated above to the apex, which is expanded into a cup-shaped disk, black externally, white within and black-punctate from the projecting ostiola, as in the preceding species; asci subcylindrical, very briefly pedicellate, 8-spored, $120 \times 24 \mu$, pseudoparaphyses very long, stout, filiform, septate; sporidia uniseriate or subbiseriate, ovate, straight, dark, surrounded by a thick, hyaline coat at first, $28-30 \times 16 \mu$. Specimens collected in Cuba by Wright and sent us by Prof. Farlow have the stems subconnate at base, about three cm. high and two millim. thick at base, the terminal disk about three millim. broad.

ADDITIONS TO HYPOCREACEÆ.

BY J. B. ELLIS AND B. M. EVERHART.

CORDYCEPS SPINGUM, Tul.—Sel. Carp. III, p. 12. (*Isaria Sphingum*, Schw., Syn. Car., 1298 [conidia.]) On a dead larva in its cocoon, attached to a rotten limb lying on the ground in the swamp. Newfield, N. J., Aug. 7, 1887. Stromata numerous, about thirty in the single specimen found, thread-like, about five cm. high and rather less than one millim. thick, cinereous, nearly smooth and glabrous or slightly white-farinose-tomentose, bulbous at the base and more or less undulate and bent, especially below and within the cocoon, which they seem to have penetrated with some difficulty; perithecia superficial, cylindric-conic, $200-225 \mu$ high, $125-150 \mu$ thick, rounded above, chestnut color; ostiolum not prominent; asci linear-lanceolate, $150-200 \times 6-7 \mu$ when young with a depressed, conical tip about four μ wide; sporidia filiform, nucleate, about as long as the asci and about two μ wide, probably finally separating into joints or segments. The larva from which the fungus grows is about three cm. long and one half cm. thick, and the stipes or stromata arise from all the segments of the body. Some of the stromata were sparingly branched above.

[In Tulasne's figure the fungus is represented as growing from the perfect insect, and the perithecia are said to be of a pale red color ("pallide rubentia"). From these and other considerations, I was at first inclined to consider this as a new species, but my colleague, Mr. Everhart, having carefully examined the specimen, assured me that it could not be specifically distinct, and I am now convinced that he is right.—J. B. E.]

CORDYCEPS HERCULEA, Schw.—A fine specimen of this species has been sent from Ohio by Prof. A. P. Morgan. When fresh it was about three inches high and half an inch thick, growing from some dead larva of considerable size. The fertile head, which occupies about an inch of the upper part of the stem, leaving a short, rather obtuse, sterile tip, is of a light yellow color and roughened by the somewhat prominent,

closely-packed perithecia, which are about 150 μ in diameter, with slightly prominent ostiola, of a pale, radiate-fibrous structure; asci 200—225 x 6—7 μ , gradually attenuated to the base and containing eight filiform sporidia which separate into joints 6—8 x $\frac{1}{4}$ —1 μ , with the ends slightly swollen.

NOTE.—In the description of *Cordyceps militaris*, on page 30, Vol. II, of this JOURNAL, the sporidia are said to break up into joints $\frac{1}{2}$ — $\frac{3}{4}$ μ long—it should be 2—3 μ long. The sporidia are seen to best advantage while the specimen is drying, when they are discharged copiously, so that the clavate head appears to be enveloped in a white mold.

In the synopsis of *Hypocreaceæ* the following species was omitted:

CORDYCEPS INSIGNIS, Cke. & Rav.—Grev. XII, p. 38. On dead larvæ buried in the ground. Seaboard of South Carolina. Ravenel, 3251. "Lividopurpurea; stipite recto (3—4 cm.), pallido, sulcato, æquali; capitulo subgloboso, ovato, e peritheciis leniter asperulo; peritheciis minimis, confertis, ovatis; ostiolo punctiformi, obscuriore; ascis cylindraceis, longissimis (.6 millim.), dissilientibus. Somewhat resembles *C. Entomorrhiza*, but is larger and more robust; stem about 4—5 millim. thick and longitudinally sulcate; capitulum $1\frac{1}{2}$ cm. long and one cm. broad, livid purple. In many respects it reminds us of *Cordyceps capitata*."

HYPOCREA SUBCARNEA, E. & E., n. s.—On dead limbs of *Lonicera* (Cult.) Newfield, N. J., May, 1887. Stroma effused, thin, cracked, dirty flesh color, much resembling *Corticium scutellare*, B. & C. Perithecia carinose, pale, minute (80 μ), buried in the stroma and barely visible under the lens as minute specks, giving the stroma a punctate appearance; asci subcylindrical, sessile, without paraphyses, 30—35 x 5—7 μ ; sporidia uniseriate or partly biseriate above, subhyaline (with a yellowish tint), oblong-elliptical, 1—2-nucleate, $3\frac{1}{2}$ — $4\frac{1}{2}$ x 2— $2\frac{1}{2}$ μ . Outwardly this scarcely differs from *H. corticiicola*, E. & E., except in the flesh-colored tint of the stroma, but the sporidia are very different, much like those of *H. consimilis*, Ell., from which, however, it is quite distinct. This species is evidently a close ally of *H. corticiicola*, E. & E., and *H. hypomycella*, Sacc., but, applying the carpological classification, it would be placed in another genus and in a different section.

HYPOMYCES GEOGLOSSI, E. & E.—JOURN. MYCOL., II, p. 73. This has been found again near the original locality, not on *G. glabrum*, but on *G. hirsutum*, Pers., and from the fresh specimens the following notes were taken: The affected plants are more rigid and the stem is considerably enlarged, for the parasite not only occupies the hymenium but extends down on the stem nearly to the base, giving the whole a slightly rufous or pale liver-colored hue. The fresh perithecia, which are very soft, are 100—150 μ in diameter, depressed-globose and can hardly be said to be immersed, but form a compact layer on the hairy coat of the host without penetrating to any appreciable extent into its substance. The asci are clavate-oblong, 35—40 x 6—7 μ , sessile and without paraphyses; sporidia, as before, clavate-oblong, mostly two-nucleate and 7—10 x $2\frac{1}{2}$ —3 μ , hyaline. The measurement of the asci, as originally published, is

erroneous. The correct measurement is as here given and is the same as marked on the original package. This differs from the ordinary type of *Hypomyces* in the absence of any distinct subiculum.

HYPOMYCES AURANTIUS (Pers.)—Specimens of this species were found associated with *H. polyporinus*, Pk., at Newfield, N. J., about the first of July, 1887, on old *Polyporus versicolor*, Fr., on a decaying oak log. From the fact that the two species occurred often on the same specimen of *Polyporus*, the suspicion arose that *H. polyporinus* might be only the earlier stage of growth of *H. aurantius*, but a careful comparison showed that this could hardly be the case. The perithecia of *H. aurantius* are larger (one fourth millim.) and, though somewhat pale at first, soon assume a deep orange tint; the mycelium also, which at first stains the matrix light yellow, soon assumes the same color as the perithecia. The asci, which are narrow-cylindrical, are about $100 \times 4 \mu$ and the uniseriate, partly overlapping, fusoid sporidia are $16-24 \times 4-5 \mu$, with a short acumination at each end and the endochrome more or less distinctly divided in the middle. The specimens agree well with those received from Dr. Plowright, but the perithecia are rather more pointed above than represented in his figure in Grevillea, pl. 150. The conidial stage, *Diplocladium minus*, Bon., was found associated with the ascerigerous specimens. *H. polyporinus* Pk., has the perithecia smaller (150μ) and paler, becoming finally of a pale apricot, color. The mycelium also, though occasionally of a pale yellow color at first, never assumes the deep orange tint seen in *H. aurantius*. The sporidia of *H. polyporinus* are of the same shape as those of *H. aurantius* but smaller, mostly about $15 \times 3 \mu$. In both, the perithecia are distinctly ovate, though in *H. aurantius* they are quite obtuse when young. This last-named species has also been found at Vermilion Lake, Minnesota, by Mr. E. W. D. Holway.

HYPOMYCES CHLORINUS, Tul. (?)—Sel. Carp., III, 59. Parasitic on the mouths of the tubes of some small *Boletus*. Newfield, N. J., Aug. 16, 1887. Mycelium white cottony, much branched, forming a thin, white coat over the entire surface of the host; conidia golden yellow (under the microscope), large, $25-35 \times 12-15 \mu$, narrow-elliptical or oblong, marked with several longitudinal grooves or striæ and borne singly at the ends of the branches of the mycelium. These conidia resemble somewhat an old fashioned, long musk melon or an ear of Indian corn; perithecia globose, minute ($112-120 \mu$), forming a continuous layer over the tubes of the *Boletus* and extending down the stem, nearly hyaline at first, finally light yellow, scarcely projecting above the mycelial layer in which they are bedded, presenting very much the appearance of *Hypocrea citrina*; asci cylindrical, about $65 \times 3 \mu$; sporidia uniseriate, hyaline, ovate, one-septate, constricted at the septum, $7-9 \times 2\frac{1}{2}-3 \mu$, ends rounded. Whether the conidial stage noted by Tulasne really belongs here is uncertain. The "microconidia" he speaks of, we do not find, nor do we notice any green color, but the "macroconidia" above noted agree well in size and shape with those described by him, and the habitat (*Boletus subtomentosus*, apparently) makes it somewhat probable that the reference of our *Hypomyces* to *H. chlorinus* may be correct.

ACROSPERMUM RAVENELII, B. & C.—Having recently received from Mr. B. T. Galloway good specimens of this species on dead leaves of *Cercis Canadensis*, collected in Boone county, Mo., June, 1887, we can add to the brief description on p. 5 of the current volume the following notes and measurements:

Perithecia clavate-cylindrical, cinereous black, of fibrous texture, contracted a little above the base and rather obtuse at the apex, 300—350 μ high and 70—80 μ thick; asci about 200 x 3 μ , containing eight filiform, continuous, yellowish hyaline sporidia nearly as long as the asci. Quite different from *A. foliicolum*, B. & C., which has longer, liver-colored or chestnut-colored perithecia.

NECTRIA RUBEFACIENS, E. & E., n. s.—Parasitic on thallus of some lichen on various dead limbs lying on the ground. Newfield, N. J. Perithecia globose, 80 μ in diameter, smooth, or roughened with scattered, rudimentary, granular-like hairs, subastomous, of fine cellular texture, pallid at first, becoming orange-red; asci broad clavate, 35—40 x 10—12 μ , without paraphyses; sporidia irregularly crowded, oblong-cylindrical, hyaline, uniseptate and constricted at the septum, distinctly curved, 14—18 x 2½—3 μ . The thallus of the lichen (*Parmelia tiliacea* [?]) turns dull red (bright red inside). The perithecia are scattered and superficial. This species has been observed now for the past eight years and seems to be quite distinct from any other lichenicolous species

NEW SPECIES OF FUNGI FROM VARIOUS LOCALITIES.

BY J. B. ELLIS AND B. M. EVERHART.

DIATRYPELLA PUSTULATA, E. & E.—On dead twig of *Lonicera* (Cult.) Newfield, N. J., May, 1887. Stromata tuberculiform-pustulate, gregarious, white inside, sometimes confluent, but mostly standing singly, closely covered by the blackened epidermis, which is not ruptured but merely pierced by the short, stout, cylindrical ostiola, which are mostly about four-stellate cleft at the tips; perithecia few in a stroma (1—4), quite often only one, globose, ½—¾ millim. in diameter, asci rounded above, contracted below into a slender base; sporidia allantoid, yellowish-hyaline, 5—8 x 1½ μ . The part of the branch occupied by the fungus is deeply penetrated by a black, circumscribing line. This is certainly closely allied to *D. Tocciæana*, DeNot., which also has the stroma closely covered by the epidermis and which this also resembles in other respects, but differs from that species and its allies in its prominent ostiola, which, when fully developed, are one fifth to one third millim. high. The bases of the perithecia penetrate the wood, but when the bark becomes loosened they remain attached to it and fall away with it, leaving the surface of the wood pitted with cup-shaped cavities.